What is claimed is:

5

10

15

- 1. A method of preventing biofilm formation comprising inhibiting the gacA/gacS regulatory system of an organism.
 - 2. The method of Claim 1 wherein the organism is *P. aeruginosa*.
- 3. The method of Claim 1 wherein the inhibition is produced by antibodies to gacS.
- 4. A composition useful for preventing biofilm formation comprising a compound which inhibits the gacA/gacS regulatory system in a pharmaceutically acceptable form.
 - 5. The composition of Claim 4 wherein the compound is an antibody to gacS.
- 6. The composition of Claim 4 wherein the compound is a small molecule which inhibits gacS
- 7. A method to treat a biofilm infection in a subject comprising inhibiting the gacA/gacS regulatory system of an organism.
 - 8. The method of Claim 7 wherein the organism is *P. aeruginosa*.
- 25 9. The method of Claim 7 wherein the inhibition is produced by antibodies to gacS.
 - 10. A method of regulating biofilm formation by an organism comprising modulating the gacA/gacS regulatory system of the organism.

- 11. The method of Claim 10 wherein the organism is a symbiotic bacterium.
- 12. The method of Claim 10 wherein the organism is a plant root bacterium.
- 13. The method of Claim 10 wherein the organism is *P. chlororaphis*.

5

10

- 14. The method of Claim 10 wherein modulating is produced by antibodies to gacS.
- 15. The method of Claim 10 wherein modulating is produced by a small molecule specifically binding with gacS of the organism.
- 16. A composition useful for regulating biofilm formation by an organism comprising a compound which modulates the gacA/gacS regulatory system of the organism.
 - 17. The composition of Claim 15 wherein the compound is an antibody to gacS.
- 18. The composition of Claim 15 wherein the compound is a small molecule specifically binding with gacS of the organism.